

AMENDMENTS TO THE CLAIMS

Claim 1. (Currently Amended)

A manufacturing quality information database stored in a computer-readable medium and usable for tracking quality information relating to a manufacturing process, comprising:

a symptom data entity storing symptoms, which are observable states indicative of a defect, of manufacturing process defects;

a defect data entity storing defects of the manufacturing process; and

an action data entity storing repair actions for remedying related defects,

said defect data entity being associated with said symptom data entity;

and

said action data entity being associated with said defect data entity.

Claim 2. (Original)

The manufacturing quality information database according to claim 1, wherein said manufacturing quality information database tracks a plurality of manufacturing processes,

the manufacturing quality information database further comprising:

a process data entity storing identities of the manufacturing processes,

said symptom data entity, said defect data entity, and said action data entity being associated with said process data entity.

Claim 3. (Original)

The manufacturing quality information database according to claim 1,
wherein said manufacturing quality information database tracks a
plurality of manufactured items,

the manufacturing quality information database further comprising:
an item data entity storing identities of manufactured items;
said symptom data entity, said defect data entity, and said action data
entity being associated with said item data entity.

Claim 4. (Original)

The manufacturing quality information database according to claim 1,
further comprising:

a symptom category data entity for storing symptom categories of
manufacturing defects;
said symptom data entity being associated with said symptom category
data entity.

Claim 5. (Original)

The manufacturing quality information database according to claim 4,
wherein said manufacturing quality information database tracks a
plurality of manufacturing processes,

the manufacturing quality information database further comprising:
a process data entity storing identities of the manufacturing processes;
and
a process/symptom frequency data entity observing a relationship
frequency between the symptom categories and the manufacturing process
identities.

Claim 6. (Original)

The manufacturing quality information database according to claim 1,
further comprising:

a defect category data entity for storing defect categories of the
manufacturing process;
said defect data entity being associated with said defect category data
entity.

Claim 7. (Original)

The manufacturing quality information database according to claim 6,
further comprising:

a symptom/defect frequency data entity observing a relationship
frequency between the symptom categories and the defect categories.

Claim 8. (Original)

The manufacturing quality information database according to claim 1,
further comprising:

an action category data entity storing action categories;

said action data entity being associated with said action category data
entity.

Claim 9. (Original)

The manufacturing quality information database according to claim 8,
further comprising:

a defect/action frequency data entity observing a relationship frequency
between the defect categories and the action categories.

Claim 10. (Original)

The manufacturing quality information database according to claim 1,
wherein said manufacturing quality information database tracks a
plurality of manufacturing processes,

the manufacturing quality information database further comprising:

a process data entity storing identities of the manufacturing processes;

a symptom category data entity storing symptom categories of
manufacturing defects;

a defect category data entity storing defect categories of the manufacturing process; and

a process/symptom/defect frequency data entity observing a relationship frequency between the manufacturing process identities, the symptom categories and the defect categories.

Claim 11. (Original)

The manufacturing quality information database according to claim 1, wherein said manufacturing quality information database tracks a plurality of manufacturing processes,

the manufacturing quality information database further comprising:

a process data entity storing identities of the manufacturing processes;

a symptom category data entity storing symptom categories of manufacturing defects;

a defect category data entity storing defect categories of the manufacturing process;

an action category data entity storing action categories; and

a process/symptom/defect/action frequency data entity observing a relationship frequency between the manufacturing process identities, the symptom categories, the defect categories, and the action categories.

Claim 12. (Original)

The manufacturing quality information database according to claim 1,
further comprising:

a symptom category data entity storing symptom categories of
manufacturing defects;

a defect category data entity storing defect categories of the
manufacturing process;

said symptom data entity being associated with said symptom category
data entity;

said defect data entity being associated with said defect category data
entity; and

said defect category entity being associated with said symptom category
data entity.

Claim 13. (Original)

The manufacturing quality information database according to claim 1,
further comprising:

a defect category data entity storing defect categories of the
manufacturing process;

an action category data entity storing action categories;

said defect data entity being associated with said defect category data
entity;

said action data entity being associated with said action category data entity; and

said action category data entity being associated with said defect category data entity.

Claim 14. (Currently Amended)

A method of using a manufacturing quality information database for tracking quality information relating to a manufacturing process, comprising:

storing symptoms, which are observable states indicative of a defect, of manufacturing process defects in a symptom data entity;

storing defects of the manufacturing process in a defect data entity; and
storing repair actions for remedying related defects in an action data entity,

associating the defect data entity with the symptom data entity; and
associating the action data entity with the defect data entity.

Claim 15. (Original)

The method of using a manufacturing quality information database according to claim 14, further comprising:

tracking a plurality of manufacturing processes with the manufacturing quality information database;

storing identities of the manufacturing processes in a process data entity; and

associating the symptom data entity, the defect data entity, and the action data entity with the process data entity.

Claim 16. (Original)

The method of using a manufacturing quality information database according to claim 14, further comprising:

tracking a plurality of manufactured items with the manufacturing quality information database;

storing identities of manufactured items in an item data entity; and

associating the symptom data entity, the defect data entity, and the action data entity with the item data entity.

Claim 17. (Original)

The method of using a manufacturing quality information database according to claim 14, further comprising:

storing symptom categories of manufacturing defects in a symptom category data entity; and

associating the symptom data entity with the symptom category data entity.

Claim 18. (Original)

The method of using a manufacturing quality information database according to claim 17,

tracking a plurality of manufacturing processes with the manufacturing quality information database;

storing identities of the manufacturing processes in a process data entity;

observing a relationship frequency between the symptom categories and the manufacturing process; and

storing the relationship frequency in a process/symptom frequency data entity.

Claim 19. (Original)

The method of using manufacturing quality information database according to claim 14, further comprising:

storing defect categories of the manufacturing process in a defect category data entity; and

associating the defect data entity being with the defect category data entity.

Claim 20. (Original)

The method of using a manufacturing quality information database according to claim 19, further comprising:

observing a relationship frequency between the symptom categories and the defect categories; and

storing the relationship frequency in a symptom/defect frequency data entity.

Claim 21. (Original)

The method of using manufacturing quality information database according to claim 14, further comprising:

storing action categories in an action category data entity; and

associating the action data entity with the action category data entity.

Claim 22. (Original)

The method of using a manufacturing quality information database according to claim 21, further comprising:

observing a relationship frequency between the defect categories and the action categories; and

storing the relationship frequency in a defect/action frequency data entity.

Claim 23. (Original)

The method of using manufacturing quality information database according to claim 14, further comprising:

tracking a plurality of manufacturing processes with the manufacturing quality information database;

storing identities of the manufacturing processes in a process data entity;

storing symptom categories of manufacturing defects in a symptom category data entity;

storing defect categories of the manufacturing process in a defect category data entity;

observing a relationship frequency between the manufacturing process identities, the symptom categories and the defect categories; and

storing the relationship frequency in a process/symptom/defect frequency data entity.

Claim 24. (Original)

The method of using a manufacturing quality information database according to claim 14,

tracking a plurality of manufacturing processes with the manufacturing quality information database,

storing identities of the manufacturing processes in a process data entity,

storing symptom categories of manufacturing defects in a symptom category data entity;

storing defect categories of the manufacturing process in a defect category data entity;

storing action categories in an action category data entity;

observing a relationship frequency between the manufacturing process identities, the symptom categories, the defect categories, and the action categories; and

storing the relationship frequency in a process/symptom/defect/action frequency data entity.

Claim 25. (Original)

The method of using a manufacturing quality information database according to claim 14, further comprising:

storing symptom categories of manufacturing defects in a symptom category data entity;

storing defect categories of the manufacturing process in a defect category data entity;

associating the symptom data entity with the symptom category data entity;

associating the defect data entity with the defect category data entity;
and
associating the defect category entity with the symptom category data
entity.

Claim 26. (Original)

The method of using a manufacturing quality information database
according to claim 14, further comprising:

storing defect categories of the manufacturing process in a defect
category data entity;

storing action categories in an action category data entity;

associating the defect data entity with the defect category data entity;

associating the action data entity with the action category data entity;

and

associating the action category data entity with the defect category data
entity.